

AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Previously presented): A data communications terminal for sequentially transferring frame data to and from another data communications terminal via a data circuit in units of data frames with each data frame amounting to one still picture containing compressed image data of variable length and compressed audio data of variable length, said data communications terminal characterized by a data transmission function capable of:

transmitting a multiplicity of leading data frames with predetermined image and sound qualities and/or a predetermined frame rate;

determining the degree of congestion of said data circuit from the data transmission time to transmit a data frame that precedes the current data frame by at least one data frame;

making a determination that the degree of congestion of said data circuit has increased (vacancy of said data circuit has decreased) when said data transmission time is increasing, thereby transmitting the next data frame with reduced picture and sound qualities and/or a reduced frame rate; and

making a determination that the degree of congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said data transmission time is decreasing, thereby transmitting the next data frame with an increased picture and sound qualities and/or a reduced frame rate.

2. (Previously presented) A data communications terminal for sequentially transferring frame data to and from another data communications terminal via a data circuit in units of data frames with each data frame amounting to one still picture containing compressed image data of variable length and compressed audio data of variable length, said data communications terminal characterized by a data transmission function capable of:

transmitting a multiplicity of leading data frames with predetermined image and sound qualities and/or a predetermined frame rate;

determining the degree of congestion of said data circuit from the data reception time for the communications terminal receiving frame data to receive the data frame that precede the current data frame by at least one data frame;

making a determination that the degree of congestion of said data circuit has increased (vacancy of said data circuit has decreased) when said data reception time is increasing, thereby transmitting the next data frame with reduced image and sound qualities and/or a reduced frame rate; and

making a determination that the congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said data reception time is decreasing, thereby transmitting the next data frame with increased image and sound qualities and/or an increased frame rate.

3. (Previously presented): A data communications terminal for sequentially transferring frame data to and from another data communications terminal via a data circuit in units of data frames with each data frame amounting to one still picture containing compressed image data of variable length and compressed audio data of variable length, said data communications terminal characterized by data transmission functions capable of:

transmitting a multiplicity of leading data frames with predetermined image and sound qualities and/or a predetermined frame rate;

calculating a ratio (data reception time)/(data transmission time) from the data transmission time for said data communications terminal transmitting frame data to transmit respective data frames that precede the current data frame by at least one data frame and the data reception time for the data communications terminal receiving frame data to receive respective data frames that precede the current data frame by at least one data frame;

determining the degree of congestion of said data circuit from said (data reception time)/(data transmission time);

making a determination that the degree of said data circuit has increased (vacancy of said data circuit has decreased) when said ratio (data reception time)/(data transmission time) is

increasing, thereby transmitting the next data frame with reduced image and sound qualities and/or a reduced frame rate; and

making a determination that the degree of congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said ratio (data reception time)/(data transmission time) is decreasing, thereby transmitting the next data frame with increased image and sound qualities and/or an increased frame rate.

4. (Currently amended): The data communications terminal for sequentially transmitting to, and receiving from, another data communications terminal frame data via a data circuit in units of data frames with each data frame amounting to one still picture containing compressed image data of variable length and compressed audio data of variable length, according to any one of claims 1, 2[[, and]] or 3, characterized in that the communications terminal receiving frame data has a data reception time measurement and data transmission function capable of measuring data reception time to receive respective data frames that are transmitted in sequence from a data communications terminal and transmitting said measured data reception time to the data transmitting terminal.

5. (Previously presented): The data communications terminal according to claim 1 or claim 3, characterized in that said data transmission time is the time interval from the beginning of the transmission of data frame that precedes the current data frame by at least one frame and the end of said transmission by the data communications terminal transmitting frame data.

6. (Currently amended): The data communications terminal according to ~~any one of claims 2, 3, and 4~~ claim 2 or claim 3, characterized in that said data reception time is the time interval from the beginning of the reception of data frame that precedes the current data frame by at least one frame and the end of said reception by the terminal receiving frame data.

7. (Currently amended): The data communications terminal according to claim[[s]] 1 ~~or claim 5~~, characterized in that said data communications terminal is adapted to:

make a determination that the degree of congestion of said data circuit has increased (vacancy of said data circuit has decreased) when said data transmission time is increasing, thereby transmitting the next data frame with an increased data compression rate, a reduced picture size, and/or a reduced frame rate; and

make a determination that the degree of congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said data transmission time is decreasing, thereby transmitting the next data frame with a reduced data compression rate, an increased picture size, and/or an increased frame rate.

8. (Currently amended): The data communications terminal according to claim 2 ~~or claim~~ 6, wherein said data communications terminal is adapted to:

make a determination that the degree of congestion of said data circuit has increased (vacancy of said data circuit has decreased) when said data reception time is increasing, thereby transmitting the next data frame with an increased data compression rate, a reduced picture size, and/or a reduced frame rate; and

make a determination that the degree of congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said data reception time is decreasing, thereby transmitting the next data frame with a reduced data compression rate, an increased picture size, and/or an increased frame rate.

9. (Currently amended): The data communications terminal according to claim[[s]] 3, characterized in that said data communications terminal is adapted to:

make a determination that the degree of congestion of said data circuit has increased (vacancy of said data circuit has decreased) when said ratio (data reception time)/(data transmission time) is increasing, thereby transmitting the next data frame with an increased data compression rate, a reduced picture size, and/or a reduced frame rate; and

make a determination that the degree of congestion of said data circuit has decreased (vacancy of said data circuit has increased) when said ratio (data reception time)/(data transmission

time) is decreasing, thereby transmitting the next data frame with a reduced data compression rate, an increased picture size, and/or an increased frame rate.

10. (Currently amended): The data communications terminal according to any one of claims 1, 2[[, and]] or 3, characterized in that said data communications terminal prioritizes the sound quality over the frame rate of frame data to be transmitted when controlling the picture quality, sound quality and/or frame rate thereof in accordance with the degree of congestion of said data circuit.

11. (Currently amended): The data communications terminal according to any one of claims 1, 2[[, and]] or 3, characterized in that said data communications terminal is adapted to maintain a constant quality of said frame data to be transmitted such that, when reducing the picture and sound qualities and/or frame rate thereof, the picture and sound reproduced from said frame data are recognizable.

12. (Currently amended): The data communications terminal according to any one of claims 1, 2[[, and]] or 3, characterized in that said picture quality is given by the data compression rate and picture size (numbers of pixels in vertical and horizontal directions) of relevant picture data, and said sound quality is given by the data compression rate of relevant sound data.